



City of South Lake Tahoe

"making a positive difference now"

September 13, 2010

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Lahontan Water Board
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RE: COMMENTS ON BASIN PLAN AMENDMENTS-LAKE TAHOE TOTAL MAXIMUM DAILY LOAD

The City of South Lake Tahoe (City) welcomes the opportunity to review and comment on the proposed Basin Plan (BP) amendments which include a draft Lake Tahoe Total Maximum Daily Load for Sediment and Nutrients (LTTMDL) as well as other documents that comprise a Substitute Environmental Document for the Lake Tahoe TMDL project per the California Environmental Quality Act (CEQA).

As requested in your July 9, 2010 "Notice of Public Hearing and Notice of Filing of Draft Environmental Documents", written comments are being submitted in MS Word by e-mail. A printed version will also be mailed. To facilitate review, we are using the following formatting when discussing text language proposed by Lahontan Water Board or City staff.

Existing BP or Final TMDL Report text is shown in *italics*
Lahontan's proposal for Added text shown as *underlined italics*
Lahontan's proposal for Deleted text is shown in ~~*strikethrough italics*~~.

City's proposed additions are shown as ***bold underlined text in italics***
City's proposed deletions are shown as ~~***bold-strikethrough-text in italics***~~.

Comments and Discussion on summary of proposed changes to the Basin Plan described in the four-page long July 9, 2010 notice on Proposed Amendments to the Water Quality Control Plan for the Lahontan Region: Lake Tahoe Total Maximum Daily Load

City staff support the changes to the approach to restore Lake Tahoe which:

- Identify fine sediment particles (FSP) as a discrete pollutant in addition to nitrogen and phosphorus
- Replaces the 20-year compliance date ending in 2007 approach with a TMDL Implementation Plan Timeline
- Eliminates numeric effluent limits for stormwater discharges to infiltration systems, thereby removing a disincentive to using infiltration as a preferred an effective stormwater treatment
- Eliminates numeric effluent limits for Total Iron and Oil and Grease, noting that receiving water standards are more stringent

- Allow municipal stormwater permittees flexibility in prioritizing load reduction actions and in selecting design storms for catchment scale activities and projects.

Specific comments:

Page 2 – 5. Eliminate Numeric Effluent Limits for Stormwater Discharges to Infiltration Systems

6th paragraph-

In the event there isn't sufficient separation between infiltration systems and groundwater levels, the Basin Plan ensures water quality protection by stating that when the separation between infiltration systems and groundwater is less than five (5) feet, discharges may be required to meet effluent limits for discharges to surface waters.

No change to BP language is proposed. City staff support the existing language allowing Water Board discretion in applying effluent limits through the “*may be required*” phrase. However, TRPA code does not appear to allow this flexibility. For industrial sites where high pollutant concentrations would be expected, additional pre-treatment should be required. For less developed sites, expensive pre-treatment may not be needed. Please report on progress in getting Lahontan and TRPA rules to be consistent. If all discharges in areas with high seasonal water tables are required to be treated to meet surface water effluent limits, there would be little incentive to construct stormwater spreading or infiltration facilities which, for much of the year, would be effective in reducing pollutant loads discharged to Lake Tahoe.

Comments and Discussion on Proposed BP amendments

The proposed BP amendments include a new section 5.18 “Total Maximum Daily Load for Sediments and Nutrients, Lake Tahoe, El Dorado and Placer Counties” and changes to existing BP language

New Section 5.18 TMDL for Sediment and Nutrients, Lake Tahoe

Table 5.18.2, 5.18.3, and 5.18.4 on Page 7

These tables show baseline loads and milestone load reductions by pollutant source category and are summarized in the table below.

Pollutant Source	Fine Sediment Particles		Total Nitrogen (TN)				Total Phosphorus (TP)		
	basin-wide load	reduction @ year		basin-wide load	reduction @ year 65		basin-wide load	reduction @ year 65	
		15	65		15	65		15	65
Forest Upland	9%	<u>12%</u>	<u>20%</u>	18%	0%	0%	32%	1%	3%
Urban Upland	72%	34%	71%	18%	<u>19%</u>	<u>50%</u>	47%	21%	46%
Atmosphere	16%	39%	55%	63%	1%	2%	18%	33%	<u>61%</u>

Bold underlined italics indicates disproportionately high reduction, *italics* indicates disproportionately low reduction. For example, though producing only 18% of TN loads, urban uplands need to reduce TN loads by 50% by year 65; atmospheric sources which

produce 63% of TN loads are only required to reduce loads by 2% by year 65 and Forest Uplands, also responsible for 18% of TN loading, are not required to reduce any TN loads. Though we recognize that Lahontan staff has referred to the Lake Tahoe TMDL Pollutant Reduction Opportunity Report (2008) and other TMDL reports in responding to questions on how the load reductions were allocated to pollutant sources, additional efforts to consider load reductions from forested uplands and atmospheric sources should be evaluated.

For example, in discussing the Characterization of Emission Sources in the Atmospheric Sources Section 2 (page 37) of the Lake Tahoe TMDL Pollutant Reduction Opportunity Report (PRO report), the dominant source of resuspended dust from bare and disturbed surfaces in the Basin is identified as construction, and windblown dust from logging is considered to be negligible. Therefore, the PRO report addressed only the atmospheric dust load-reduction potential for control measures for bare, disturbed surfaces associated with construction sites, and did not appear to adequately address opportunities to reduce similar loads coming from disturbed areas within forested lands.

In the current economic conditions there is relatively little construction activity in the Tahoe Basin. After the 2007 Angora Fire, there has been an increased emphasis on the legitimate need for substantial fuels reduction in the basin. There are, and are likely to continue to be, significant soil disturbance associated with fuels reduction activities in forested areas. A comparison of the acreage of urban lands under construction to the acreage of fuels reduction treatment would be useful. Control measures should be considered for bare, disturbed surfaces associated with fuel reduction activities in forested uplands, particularly those adjacent to urbanized areas, roads and surface waters. These control measures could be similar to measures that would be used to reduce atmospheric dust associated with construction projects. Larger load reduction milestones should be considered for forested uplands and/or atmospheric sources.

Margin of Safety and Future Growth Potential – Page 8

This section notes that future build-out of all developable vacant private lots under existing regulations would only increase FSP loads by 2%. Please clarify whether the Lake Tahoe Watershed Model assumes that BMPs installed on newly developed parcels would be adequately maintained to prevent additional pollutant loads. One of the strategies to reduce urban upland pollutant loads from existing or new development is to increase requirements for private and public BMP inspection and maintenance.

Implementation Plan - Page 8

"The available tools for estimating the benefits from load reduction actions within the stream channel erosion, atmospheric deposition, and forest upland are less advanced than the established methods to estimate urban upland control measure effectiveness."

With all the efforts to protect or restore salmonid fisheries in the forested Northwest, is this true? The methods to estimate urban upland control measure effectiveness are still being debated, and additional data on BMP performance is needed (e.g. see Final Lake Tahoe TMDL Report pgs 12-5, 13-2) Are the tools for assessing pollutant reduction measure effectiveness in forested lands really less advanced?

Urban Runoff - Page 9

City staff are disappointed that the basin-wide baseline load estimates were not scaled down to jurisdiction-scale baseline load estimates. The City had anticipated that task would be completed by the regulatory agencies prior to adopting BPA or MS4 permits. Jurisdictions now may use different baseline load calculation methods. We are not sure that using *standardized baseline condition values ... consistent with those used to estimate the 2003/2004 basin-wide pollutant loads* is sufficient to ensure that the estimated jurisdictional baselines will be comparable. Use of the Pollutant Load Reduction Model to estimate pollutant load reductions for projects will help identify worthy projects competing for grant dollars. However, without comparable baseline load calculations, it may be more difficult to allocate financial support (i.e. grants for water quality projects) among the jurisdictions in a manner that would provide the greatest potential load reduction.

The Lake Clarity Crediting Program is *intended to be incorporated into the NPDES permits*, providing tools for estimating pollutant load reductions and calculating jurisdiction-scale baseline loads. Are other methods acceptable? While the Water Board need to be cautious about specifying methods of compliance, more information on what types of other methods or tools for estimating pollutant load reductions or calculating jurisdictions-scale baseline loads should be provided to MS4 permittees during the BP amendment process.

Page 10 - Atmospheric Deposition

Atmospheric deposition contributes roughly half of the nitrogen and approximately 15 percent of the fine sediment particle load that reaches the lake... The majority of fine sediment particle load is generated by urban roadways... the required atmospheric load reductions will be met by implementing regulatory measures in stormwater NPDES permits to control stormwater pollutants from urban roadways under the urban upland source category. Will these stormwater (MS4) permits require jurisdictions to estimate and verify reductions in FSP loads associated with atmospheric deposition? With much more fuels reduction activities planned in forested uplands, would atmospheric deposition related to FSP associated with disturbed soils in fuels reduction projects and vegetation management areas continue to be insignificant? The BP amendments should discuss measures to reduce atmospheric deposition of pollutants generated in forested uplands, particularly from management projects near the urban uplands, roadways, and surface waters.

Page 10-11 Future Needs:

Future research needs are identified related to stream restoration and vegetation management. These studies are needed to quantify the benefits of pollutant load reduction programs outside of the urban uplands, and, if necessary, adjust the allocation of pollutant load reductions among the source categories. Will these studies be funded by the regulatory agencies and land management agencies or is significant funding for this research also expected from the MS4 jurisdictions? The MS4 permittees will face our own challenges in funding research and monitoring for activities in the urban uplands.

Page 11. Table 5.18-5 Urban Upland Implementation/Reporting Schedule

Several actions are scheduled for *no later than two years after TMDL approval (EPA approval)*. Will the requirements to meet the schedule be specified in the MS4 permit, or would the schedule in the BPA itself be expose the MS4 permittees to enforcement actions (e.g. for violating provisions, such as schedules now in the Basin Plan)? We had understood that the updated MS4 permit would be the main regulatory tool for assessing compliance. We've recently heard from Lahontan Water Board staff that the updated MS4 permit and EPA approval most likely would now occur no earlier than fall 2011. Would this alter the schedule in Table 5.18-5? Please discuss other likely actions the Lahontan Water Board is considering to encourage or require early implementation of the requirements of LTTMDL for MS4 permittees prior to updates to the MS4 permit, e.g. modifications to Monitoring and Reporting Program required under the existing MS4 permit. This information is needed for jurisdictions to plan and budget for actions required to maintain compliance with Lahontan Water Board requirements.

Page 12 – Monitoring Plan

Regional Board expects the monitoring plan components to be fully developed by agency stakeholders within the first two years following TMDL adoption by USEPA, and full monitoring program operation is expected by the third year. Are these agency stakeholders primarily the regulatory agencies with some input from scientists, and funding and implementing agencies? City staff had hoped that the Regional Stormwater Monitoring Program (RSWMP) would be in operation prior to adoption of new MS4 permits, but development of RSWMP has been slow.

The source monitoring will focus on the largest source, urban uplands. While sampling runoff and measuring relationships between flows and precipitation is desirable, will monitoring be required by BPA or MS4 permit prior to two years after EPA approval. Prior to conducting water quality sampling, City staff want to make sure that monitoring is done in a way that produces useful results. Are the regulatory agencies comfortable with using modeled pollutant load reductions as a substitute for actual water quality monitoring until the monitoring plan components are developed. Is the anticipated cost (basin-wide) for the monitoring program called for in the BP amendments still estimated to be \$1.2 m/y? This information is also needed to plan and budget for actions need to maintain compliance.

B. Proposed Changes to Existing Basin Plan Language.

General Comments on changes to existing Basin Plan text.

Are these proposed changes to existing BP language all considered part of the Lake Tahoe TMDL (to be approved by OAL and EPA), or can some or all of these changes take effect prior to OAL EPA approval?

Specific Comments

Page 14 – pg 4.3-3 column 1, pgph. 5 - Use of Wetlands for Stormwater Treatment

City staff supports use of SEZs for removal of FSP and nutrients. Does TRPA support this approach, i.e., if TRPA requires treatment to their numerical effluent limits before discharge to SEZs or wet treatment basins, implementing agencies will not be inclined to use

SEZ/wetland treatment. Describe status of efforts to ensure that TRPA's regulatory approach to use of wetlands and SEZs will be consistent with the LTTMDL.

Page 15 - pg 4.8-4 column 2, pgph. 3

City supports this change, which eliminates the requirement that all existing facilities be retrofitted for a 20-year 1-hour storm. New language eliminates the *all*, the expired 20-year time frame ending in 2008, and specifies only that facilities be retrofit consistent with guidelines for pollutant load reduction requirements. This approach will encourage catchment-scale projects or activities designed to maximize reduce pollutant loads, while not mandating that retrofit work is required on road segments that do not discharge FSP to surface waters or the Lake.

Page 17 (pg 5-2 column 1, pgph. 1)

Development **and on-going soil-disturbing land use** practices which may have little impact elsewhere can cause severe erosion in the Tahoe Basin, increasing fine sediment particle, nitrogen and phosphorus ~~and nutrient~~ loads to Lake Tahoe. ~~Relatively small nutrient loadings can seriously affect Lake Tahoe's water quality.~~ The level of algal growth in the lake is limited by the availability of nutrients; the concentration of nutrients in the lake at present is extremely low. The primary source of additional ~~nutrients~~ phosphorus is erosion resulting from land development and land management practices. Lake Tahoe has historically been considered nitrogen limited. Recent bioassays indicate that phosphorus is also becoming limiting in some situations. ~~It is important to control all controllable sources of both nitrogen and phosphorus.~~ Development **and ongoing soil disturbances damage** vegetation and soils, and creates impervious surface coverage which interferes with natural nutrient and fine sediment particle removal mechanisms. **These areas of unprotected and impacted soils become sources for fine sediment particles.** Other sources of nutrients include fertilizers, sewer exfiltration and sewage spills, and leachate from abandoned septic systems, and atmospheric deposition.

Fine sediment particles are independently responsible for approximately two thirds of the lake's deep water transparency loss. The mechanism for transparency loss from fine sediment particles is the scattering of light in the water column. This contrasts with transparency loss due to light absorption caused by enhanced phytoplankton productivity.

Additional text proposed. It is important to recognize that new development is not the major problem at Tahoe; source control involves protection of soils in already-developed areas. On-going soil disturbance from parking, off-road vehicles, snow removal activities, or landscaping practices that leave large bare soil areas exposed all contribute to erosion and increased pollutant loading. These disturbances may persist long after a parcel has been developed.

The concept that new development is a major problem leads to the erroneous idea that new development or redevelopment of a few areas could be significant in reducing urban pollutant loads. This Water Quality Problems and Control Needs section should identify the need for additional measures to stabilize and maintain protection for soils in areas that may

have been developed many years ago. It may be useful to identify that older, densely developed and populated residential and commercial neighborhoods may be more significant pollutant sources than newer, less intense development.

Page 21 – pg 5-11, Table 5-1 – Stormwater Controls

Best Management Practices. Is it true that *Retrofits of BMPs required by Regional Board for existing development*? This may be true for the 1990s individual site WDRs, but please identify where this is a requirement in the BP. If retrofits are still required by the Regional Board, may not want to eliminate *Regional Board* from the paragraph at the top of Table 5-1.

Page 22 - pg 5.6-1 column 1, pgph 1 - Stormwater Controls

*Development **and continued soil disturbance after initial development** of the watershed has greatly accelerated natural erosion rates ...*

See previous comments for Page 17 (pg 5-2 column 1, pgph. 1)

Page 22-24 Replacement of section on effluent limitations

The City supports these changes which emphasize reducing annual loads and promoting infiltration at catchment-scale projects, rather than retaining a requirement to meet effluent limitations at all times at all locations.

Page 24 Stormwater Treatment Requirements – second paragraph

Pollutant concentrations and runoff volumes from non-roadway parcels differ greatly from commingled stormwater from roads and parcels. Provide evidence for this statement, e.g. why would runoff from a commercial non-roadway parcel have greatly different runoff volume and concentrations than runoff from a secondary road through a partly developed residential neighborhood with large lot size?

Third paragraph

*Municipal jurisdictions and state highway departments must meet load reduction requirements specified by the Lake Tahoe TMDL (Tables 5.18-2 – 5.18-4). These agencies **should must** consider a variety of different design storms, alternative treatment options, and roadway operations practices, and local ordinances to maximize average annual pollutant load reductions to meet waste load allocations.*

Change "must" to "should" in second sentence – must is appropriate for meeting load reduction requirements. Second sentence need not be mandatory – jurisdictions can determine which methods to use to comply with load reduction requirements

Fifth paragraph

For new development and re-development projects and ~~individual parcel Best Management Practice efforts retrofits to install Best Management Practices on private parcels~~, project proponents shall first consider every opportunity to

~~designed and constructed to~~ infiltrate runoff generated by the 20 year, 1-hour storm which equates to approximately one inch of runoff.

Changes proposed – to encourage private property owners to work together on multi-parcel BMPs, eliminate reference to individual parcel BMPs.

Top of Page 25

Text appears to be missing some words

Page 25 Third paragraph

In the event that site conditions do not provide opportunities to infiltrate the runoff volume generated by a 20 year, 1-hour storm, projects must meet the numeric effluent limits in Table 5.6-1. These limits shall apply to urban runoff discharges to surface waters for runoff volumes generated by a 20-year, 1-hour storm. These limits only apply to stormwater discharges that cannot be infiltrated and are not tributary to stormwater management facilities that are part of a municipality's plan to meet average annual fine sediment and nutrient load reduction requirements.

Pretreatment or treatment stormwater control measures generally are sized for flow rather than volume. Language proposes that limits apply to for the 1st inch of runoff, rather than for flows generated by runoff events up to 1 in/hour. While sizing flow-through treatment devices for the 1 in/hour storm flows would result in excessively high costs for large devices which would seldom see the design flows, it may be more appropriate to specify a design storm's flow rate rather than a volume. Unlike infiltration facilities, most treatment devices are designed for flow rates rather than volumes. For treatment devices whose effectiveness should be sized for flows rather than volumes, e.g. vaults or cartridge filters, consider allowing an option for flow-through treatment facilities to be designed to treat 0.5 inch/hour runoff events, which would treat a very high percentage of average annual runoff.

Treatment devices, regardless of size, may not be able to reliably guarantee that outflows would meet the numeric effluent limits (NELs). Dischargers violating the NELs would apparently be subject to mandatory minimum penalties (MMPs) if the discharges were not tributary to part of the municipality's registered catchments. Would MMPs apply to retrofit projects, as well as parcels w/o BMPs? Who would the Water Board target enforcement action for the MMP NEL violation; parcel owner or municipality? Need to clarify expectations and responsibilities.

Last sentence allows discharge to surface waters to exceed NELs if there are downstream municipal stormwater management facilities that are part of the municipality's load reduction plans. City supports this approach. We do want clarification as to whether this applies only to areas where catchments are registered in the Lake Clarity Crediting Program (LCCP), or also to any areas where the municipality has stormwater management facilities.

Page 26 – pg 5-7-13 - 2nd line

*Future development **or continued soil disturbance in already developed areas** will increase nutrient transport in ground water by removing vegetation which normally recycles nutrients in the watershed.*

See previous comments

Page 26 - Table 5.7-5

Table shows highest concentrations of dissolved nitrogen in recreational land uses. Text on pages 25- 26 on ground water protection and impacts of urbanization doesn't specifically mention recreational land uses. Consider adding a sentence discussing control measures for reducing nitrate concentrations or loads associated with recreational areas, e.g., fertilizer controls, etc.

Page 27 – pg 5.12-2

The revised BMP for street sweeping discusses the efficiency of different types of sweepers and requires sweeping at least once a year. Street sweeping with high efficiency (PM_{2.5}) sweepers removes many fine sediment particles that could be potentially entrained in urban runoff and reduces the amount of material that can become airborne.

Existing BP language refers to a revised BMP for street sweeping. Where is the revised BMP found? Is it necessary to specify PM_{2.5}; other high efficiency sweepers remove many fine sediment particles. The use of PM with a subscript may be confusing. PM₁₀ sweepers often refer to particle size of dust discharged during sweeper operations rather than the size of material picked up during sweeping. Is a PM_{2.5} defined elsewhere in the Basin Plan as being capable of picking up 2.5 micron particles, or is it a sweeper that would not discharge 2.5 micron particles?

Page 27 5.12-3

City supports eliminating language requiring all roads need to be retrofitted. It is appropriate to focus on roads which discharge significant loads to Lake Tahoe

Page 28-29 5.16-3

Combined, these sources Page 28
form of NOx and NH3 (ammonia). Page 29

Missing text at page break?

Comments and Discussion on Lake Tahoe TMDL Report - Draft June 2010.

General Comments – We understand that the Substitute Environmental Document is found in Section 16 of the June 2010 Final Lake Tahoe Total Maximum Daily Load Report (Final TMDL Report). The Final TMDL Report should be listed in the References section of the LTTMDL BP amendments.

Section 16. Regulatory Analysis

16.4.3 TMDL Implementation Plan

This section identifies a need for intensive roadway operations and maintenance practices and advanced stormwater treatment technologies in order to reduce fine sediment

pollutant load from urban stormwater runoff. Specific implementation actions, which may be selected by responsible parties (such as MS4 permittees) are listed. It is reasonably foreseeable that MS4 permittees would need to utilize many of the following specific implementation actions listed on pages 16-4 and 16-5 to meet pollutant load reduction requirements in the urban uplands and atmospheric deposition source categories:

Urban Uplands

- Stabilize and re-vegetate road shoulders
- Vacuum-sweep streets (in heavily sanded areas)
- Upgrade fertilizer / turf management practices to reduce nutrient application
- Require education for turf managers
- Control retail fertilizer sales within the Basin
- Recommend landscaping practices that reduce nutrient mobilization
- Remove impervious coverage (increase infiltration)
- Install and maintain infiltration trenches
- Install and maintain prefabricated infiltration systems
- Install and maintain detention basins
- Install and maintain stormwater vaults
- Install and maintain wet basins / infiltration basins
- Install and maintain constructed wetlands
- Install and maintain media filters in stormwater vaults
- Apply advanced deicing strategies

Atmospheric Deposition

- Vacuum sweep streets
- Pave dirt roads at access points
- Limit speed on unpaved roads
- Apply gravel to or pave unpaved roads
- Require adequate soil moisture or other dust suppression techniques during earth moving operations
- Reduce emissions from residential wood burning
- Reduce the total number of vehicle trips

The City has, in the past, had the support of federal or state grant programs to design, acquire land, and construct projects incorporating the underlined implementation actions listed above. Maintenance of constructed facilities has been funded by the City. Construction of new water quality projects is expected to be an important component of the City's pollutant load reduction strategy, but continued support from state and federal grants would be needed.

16.6 Environmental Checklist and Analysis 13. Public Services

As noted in the discussion of economic issues above and below, if large amounts of federal and state funding (largely for capital projects) are not available, the City would have serious difficulties trying to fund a program that could load reduction milestones. In order to meet the pollutant load reduction milestones, City funds would need to be diverted from other City programs, and there would be a reasonably foreseeable impact on the ability for the

City to provide acceptable City public services. In order to provide acceptable City public services, the City would not be able to fund a program capable of meeting pollutant load reduction milestones. This issue should be discussed in the substitute environmental document. If adequate funding is not available due to local, state, or national economic conditions, consider adopting a mitigation measure of reducing pollutant load reduction milestones or stretching out the time allowed to meet estimated % load reduction targets.

16.6 Environmental Checklist and Analysis 17.b and c. Mandatory Findings of Significance – Cumulative Impacts or Substantial Adverse Effects to Human Beings

The checklist indicates less than significant impact, noting that the reasonably foreseeable projects or activities would benefit water quality and the environment. However, the annual costs for these projects and activities (see 16.11.2) for MS4 permittees are expected to be in the tens of millions of dollars per year. Nearly all of the projects have been funded in the past by federal or state grants. With the weak economy, and the ongoing problems with the State budget, it is reasonably foreseeable that a large portion of the estimated costs would need to be picked up by the MS4 permittees. It is reasonably foreseeable that all of these increased costs to local governments could not be mitigated by increased revenue, e.g. stormwater fees. If the project ends up requiring MS4 permittees to spend tens of millions of dollars per year, there would be reasonably foreseeable impacts on other government services. Cutting funding for Parks and Recreation or Fire Departments may have cumulative impacts on the environment and substantial adverse effects to human beings, which should be analyzed.

Section 16.7 Alternatives Considered – 16.7.3 Alternative 3: 40 years to Clarity Challenge, 65 years to restore transparency

An alternative allowing 40 years to reach the Clarity Challenge is briefly discussed, noting that overall costs to reach the Clarity Challenge would be higher than in the preferred alternative (20 years to Clarity Challenge). However, no information about the annual costs in the first fifteen years for this alternative is presented. In these challenging economic conditions, funding levels to achieve the preferred alternative may not be sustained. While the goal of achieving the Clarity Challenge in 20 years is a worthy one, and may result in lower overall costs, the economic considerations sections should discuss options to modify load reduction milestones if availability of funding limits the MS4 permittees' ability to complete sufficient implementation activities to achieve the preferred alternatives milestones. Also see Professor Lewis comments below suggesting an estimate of results that could be achieved with 50% or 25% of the proposed expenditures in the first 15-20 years of implementation.

Section 16.10 California Public Health and Safety Code 57004: Peer Review

While peer reviewers generally confirmed the "scientific basis" and "scientific portion" of the regulation or policy establishing a "regulatory level, standard, or other requirement for the protection of public health or the environment", Professor Lewis had concerns about the "enormous cost" of the implementation phase. On page B-80, he states:

"Given the financial realities of the current economy, it might be good to have a companion document, of small size, outlining the results that could be obtained for

expenditures of 50 percent or 25% of the proposed expenditure. Thus, in the event of a financial hardship, source control could proceed, and still could be meaningful."

Section 16.11 Economic Considerations

16.11.2 Cost Estimates – identifies average annual capital costs of \$100 million per year for first 15 years. Of the \$1.5 billion needed for the first 15 years, \$1.3 billion is for urban runoff pollutant controls. Estimated Annual O&M costs are \$11 million per year including \$6.0 million per year for urban runoff controls and \$4.5 million for O&M for forested runoff controls. (Not sure why the forested runoff controls O&M are nearly as high as urban upland O&M, given that the 15-year milestone load reductions for FSP for forested uplands are 12%, while urban uplands are 34%.) Atmospheric O&M is estimated at \$500,000 per year.

If the City is responsible for 20% of the urban upland pollutant load, and we assume 20% of costs would be for City projects, programs or activities, the City would need 20% of \$106.5 million per year, or roughly \$21 million per year to meet pollutant load reduction requirements. If federal and state funding sources provide 80% of the funding for the capital projects, the share required by the City and its 20,000 + residents for the remainder of the capital projects (including private and municipal BMPs) and operation and maintenance, would be roughly \$4 million or \$200 per capita per year. If the federal and state funding provides only 50% of the \$21 million per year, the per capita share for the City and residents would be approximately \$500 per capita per year.

This local share would include funding for City projects and programs, as well as private funding used to install and maintain BMPs on private parcels. As the City builds more projects and develop more programs, our O&M and stormwater program costs are expected to increase. The City is working with a financial consultant to develop stable funding sources for stormwater programs and O&M, but a weak local, state, and national economy, and the need for voter approval for any stormwater fees will likely limit the amount of local funding that could be generate in the upcoming MS4 permit term.

While the City and its residents will continue to contribute to pollutant load reduction projects and programs, it is unlikely that local government and residents can pay for the programs and projects needed to meet pollutant load reduction targets without continued major funding support from state and/or federal sources. If large amounts of federal and state support are not available, load reduction targets are unlikely to be met.

If not addressed in the final Basin Plan amendments and associated TMDL documents, the City would need to have these economic issues and contingencies addressed in the updated MS4 permit.

General Comments on Unfunded Mandates

There may be unfunded mandates issues associated with the Lake Tahoe TMDL project. The updated MS4 permit (now scheduled for consideration in late 2011) will be the regulatory tool that provides details on implementation, schedules, and reporting for the Lake Tahoe

TMDL. In working with the Water Board and co-permittees, City staff will consider the status of recent stormwater unfunded mandates claims, appeals of approved claims to be made by the State Water Board, and actions by EPA to strengthen federal stormwater requirements. One strategy would be to identify potential unfunded mandates issues during the review of the proposed updated MS4 permit, and to work with the Water Board to minimize permit language that may trigger the time and expense to process unfunded mandates claims.

Other General Comments after the September 8, 2010 Water Board meeting

Numeric Effluent Limits

We learned at the September 8, 2010 Lahontan Water Board meeting that the proposed numeric effluent limit changes (regarding total iron and grease and oil discharges to surface water, and numeric effluent limits for runoff discharges to infiltration systems) were to be withdrawn, because the proposed changes were not adequately discussed in the environmental document. The withdrawal of proposed changes is important, since earlier in this letter, we supported some of the proposed changes which now are being withdrawn. The proposed changes to Section 5.6 of the Basin Plan and possibly to other sections of the Project are now being modified, and affected parties may not have sufficient opportunity for reviewing and commenting on the new language prior to Water Board consideration of adoption at the November 2010 Board meeting. While we agree that runoff from surfaces that are likely to contain oil, grease and other hydrocarbon pollutants must receive pre-treatment prior to infiltration, withdrawing the proposed modifications to the numeric effluent limits may have significant impacts on project designs and costs, therefore adversely impacting our ability to meet the Clarity Challenge.

Making another set of changes to the Basin Plan to address this issue is possible, but we know that the Basin Plan amendment process is complicated and lengthy. We are concerned that revisiting and revising this section may be delayed, and that our revised MS4 permit would be adopted prior to any updates to this section of the Basin Plan. We recommend Water Board seriously consider making changes to and recirculating the environmental document to include the modifications to the effluent limits similar to those in the July 2010 version of the Proposed Basin Plan Amendments prior to bringing the Lake Tahoe TMDL back to the Water Board for adoption. Taking two extra months to revise the environmental document would also provide the Water Board the opportunity to better address other MS4 permittee comments on the Regulatory Analysis (Section 16) of the Lake Tahoe TMDL Report.

Economic Feasibility and Milestone Load Reductions

At the September 8, 2010 Board Meeting, Mr. Singer spoke of setting the bar (for pollutant load reductions milestones) high, but that the economy may affect the Water Board's approach towards enforcement. If the national and regional economy stays weak, affecting availability of grant funding, local government budgets, and money available for private BMPs, it may be particularly difficult for MS4 permittees to meet the 10 year or 15 year load reduction milestones. It would be appropriate for the Water Board to include language about the Water Board's approach towards enforcement and modifications to the milestone load reduction schedule in the Lake Tahoe TMDL section or other sections of

Chapter 5 of the Basin Plan. A discussion in the Basin Plan of findings that could provide guidance towards enforcement or milestone schedule revisions would help address MS4 permittee and Water Board member concerns about the feasibility of meeting load reduction milestones if the national and local economy does not improve.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert Erlich". The signature is fluid and cursive, with the first name "Robert" being more prominent than the last name "Erlich".

Robert Erlich

Stormwater Coordinator
City of South Lake Tahoe